

Written HW2 – MATH 3503 Fall 2020

1. Let $\vec{x} = \langle 1, -3, 0 \rangle$ and $\vec{y} = \langle -4, 1, 1 \rangle$. Compute $\text{proj}_{\vec{y}}(\vec{x})$, $\text{proj}_{\vec{x}}(\vec{y})$, $\text{comp}_{\vec{y}}(\vec{x})$, and $\text{comp}_{\vec{x}}(\vec{y})$
2. Find the equation of the line segment from $(1, 3, -2)$ to $(2, 2, 2)$.
3. Find the equation of the plane containing the vectors $\langle 1, 1, -2 \rangle$ and $\langle -1, 0, 1 \rangle$ that contains the point $(1, 1, 1)$.